

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Alice H. Howe

TENNIS RACQUET EQUIPPED  
WITH A TENNIS BALL RETRIEVER

Attorney Docket No.: MPH-99-46

Application No: 09/655,743

Art Unit 3711

Examiner: Raleigh W. Chiu

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Commissioner for Patents and Trademarks

**Before the Board of Patent Appeals and Interference****Appellant's Reply Brief**

This communication is in response to Examiner's Answer of December 27, 2002. A petition to extend the period of response and the appropriate fee therefor accompanies this response.

**Response to Answer**

The facts on this appeal are those as set forth in appellant's brief. The facts are not the incomplete selection of those "facts" which support a given position at the exclusion of those facts ("as a whole") taught by the art, appellant and the cited patents of record. The analysis of the prior art teachings (including those relied upon in the 35 USC 103 rejections) do not support the 35 USC 103 rejections under the MPEP guidelines or what the references or patents teach and suggest as a whole. The essence of the final rejection contradicts the very references (i.e. patents) relied upon in the 35 USC 103 rejections.

Appellant takes exception to the Examiner's answer of Paper No. 15 in that it cannot be reconciled with the Manual of Patent Examining Procedure and especially the patentability requirements of section 2100. The facts of record have been identified and set forth in appellant's appeal brief.

BOARD OF PATENT  
APPEALS &  
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**Answer Fails to Follow MPEP 2100 Guidelines**

The Manual Patent Examining Procedures commands Examiners to apply those examining standards consistent with the patentability guidelines as enunciated by the Supreme Court in the decision of Graham v. John Deere Co. These guidelines provide guidance so as to insure that the patentability standards are strictly followed, that all applicants are treated fairly, and that "facts", as opposed to hunches and suppositions, form the basis upon which all patentability issues hinge. Resolution of the invention as a whole, against the background (i.e. cited prior art) of the invention, as a whole, is a necessary prerequisite before any determination of patentability can be made. Under the MPEP Policy, it is accordingly important that all four factual inquiries for determining obviousness, as enunciated by Deere, be strictly followed. This policy includes: a) determining the scope and content of the prior art (which in the situation herein has not been followed); b) determining the scope and content of appellants invention as a whole; and c) ascertaining the differences between the prior art and the claims in issue and resolving the patentability issue based upon all relevant facts. This Deere criteria has not been met since all of the claimed limitations of Applicant's invention have not been examined in light of the prior art, nor has any prior art been established reciting all of Applicant's claimed limitations. Resolving the level of the ordinary skill in the pertinent art has not also been applied herein because the skill as taught by the cited patents teach precisely the opposite from the very conclusion upon which the Examiner predicates the 35 USC 103 rejections of appellant's claims. Furthermore, the final factual analysis requiring an evaluation of evidence pertaining to consideration of all relevant facts pursuant to the Deere decision has not received any consideration in determining the patentable merits of Appellant's claims. It should be further self evident that the unexpected properties, (as heretofore unknown as taught by the cited art) as fulfilled by the very narrowly limited field of appellant's claimed components are unique and unachievable as taught by the prior art teachings. Nothing in the art of record remotely suggests Appellant's claimed invention or even more remotely the accomplishment of the impossible results. It is thus clear that a fair evaluation of the prior art, in its totality, teaches in fact that the artisan cannot accomplish what Appellant has, in

fact, accomplished and claimed. Accordingly, these secondary considerations, which exude with unexpectedness, have not been given appropriate weight as required under MPEP 2100 in reaching the determination of patentability of Appellant's claimed invention.

The final rejection of record has also not taken into account that the claimed invention must be considered as a whole. The claimed invention has been dissected and construed to embrace unclaimed elements under the guise of unsubstantiated generalities without any credence being given to the undisclosed and untaught portions of a claimed element such as the very narrowly defined limitations of the "tennis ball" engaging components of Appellant's claimed invention herein. Furthermore, the references, as applied against Appellant's claims, must be considered as a whole and must also suggest the desirability of making the combination, none of which has not been considered in the 35 USC 103 rejections of record.

The references, as relied upon in the appealed claims, clearly teach precisely the opposite from what the Examiner concludes that they do teach. The Examiner's reliance upon the reference "teachings", as used in the combined 35 USC 103 teachings, embodies scientific conclusions which absolutely contradict the very specific principles as taught by the cited references. Thus, the combined teachings *ipso facto* refute the essence of the cited reference teachings. None-the-less, the combination of such disjointed patents have been made in spite of the fact of clear contrary teachings by the very reference relied upon in the 35 USC 103 rejections.

There also exists a MPEP requirement that the cited references under any 35 USC 103 must be viewed without the benefit of the impermissible hindsight vision afforded by an Appellant's own claimed invention. Appellant's contributions should not be regarded as prior art contributions. Herein, the only basis for establishing those facts relevant to a highly unique, specific and very narrowly defined claimed component unexpectedly accomplishing only what Applicant's invention can accomplish is based only upon Applicant's invention and is not provided in any form or manner by any of those references which have been made of record and relied upon herein. Furthermore, there exists no reasonable art founded expectation of success because the

prior art, in its totality (as also reiterated in Applicant's background of the invention of pages 1-4 as well as the art cited by the Examiner), clearly teaches what Applicant has accomplished cannot be accomplished. How then can there be a reasonable expectation of success when the prior art (e.g. see Feldi Urwin, Norton, Sehubert, Ross etc. patents) teaches precisely the opposite? Again, such objective evidence *must be considered* and weighed heavily in any valid 35 USC 103 determination. The obviousness evaluation must necessarily include those unexpected results (unbeknownst and unexpected to others) which are clearly spelled out in Applicant's affidavit as well as in the comparative tabulated data set forth in Applicant's example. There is no question that there is a long felt need of appellant's inventive embodiment and uniqueness unbeknownst to all others because the prior art consistently taught that what the applicant has accomplished herein was not possible. There exists a clear teaching of failure by others since the prior art clearly taught the futility and need to undertake contradictory or complex measures such as taught by the cited Feldi patent which clearly teaches that a hook and loop ball retriever system works only as a hook and loop combination meaning only if you change completely the tennis ball cover with either the hook or loop and the racquet retriever of the other member of the hook and loop combination. Equally important is the fact that even though there was considerable interest within the tennis ball retrieving art (as evident by substantial number of patents) no one understood that a nylon monofilament hook material would merely upon tangential contact, engage, hook and lift a tennis ball weight by three fold its weight. More mystifying and unknown was what nylon monofilament hook material would ever possess such an tenacity for retrieving a tennis ball. The Feldi teachings are very clear in stating the hooks did not and will not work by themselves by reason of their incompatibility and inability to effectually engage the standard tennis ball pile. If they worked, why would Feldi go to the trouble to change the ball cover? It is quite understandable why the hooks wouldn't work in the ball because no artisan understood or appreciated that there existed a very unusual and unique hooked material amongst a myriad of other hook material and loop products which as consistently reported do not have this capability.

Appellant further directs the Board of Appeals attention to the express guidelines as set forth in MPEP 2141.02 which clearly states:

"Because that insight was contrary to the understanding and expectations of the art, the structure effectuating it would not have been obvious to those skilled in the art." 713 F.2d at 785, 218 USPQ at 700 (citations omitted).

This is precisely the facts as presented by both Feldi and Urwin. Musslin teaches nothing enabling (to broad and indefinite) and is fully discredited by the later patents such as Feldi and Urwin. The guidelines, as correctly applied in reference to *In re Spomobile*, noted that the claimed invention differed from the prior art in the selection of butyl rubber with a silicone coating as the plug material instead of natural rubber. The CCPA correctly observed that there were no teachings of the prior art which suggest the necessity of selecting Applicant's plug material which was more impervious than the natural rubber plug of the prior art. Again, as in *In re Spomobile*, there is nothing in the prior art which would suggest that any hook material, much less a very narrow defined and unique hooking material as prescribed by appellant's claims herein, would uniquely engage, hold and lift any standard tennis ball by 3 times its weight. If Appellant's invention were obvious, why would Feldi then suggest and teach completely eliminating the required wool pile or nap of a tennis ball with a synthetic loop material designed specifically for use with its mating hook or vice versa?

There exists a host of hooking materials, none of which possess the unique cooperative function of that claimed herein by the Applicant. Within this context, reference is made to Section 2141.02, the MPEP guidelines which state:

"Obvious cannot be predicted on what is not known at the time the invention is made, even if the inherency of a certain feature is later established."

Applicant's claimed invention was not known until it was discovered by the Appellant.

Furthermore, as commanded by the MPEP:

"a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. which in turn provides strong evidence of the unobviousness of an invention."

As clearly set forth in MPEP 2142, knowledge of applicant's disclosure must be set aside in reaching this determination. Tendency is to reason hindsight based upon applicant's disclosure is often difficult to avoid but essential. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the prior art facts.

As also stated and required by the MPEP, three basic criteria must be met in order to establish a prima facie case of obviousness.

First there must be some suggestion or motivation either in the reference themselves or in the knowledge generally available to the ordinary skill to modify the reference so as to combine the teaching.

Second, there must be reasonable expectation of success.

Lastly, the teachings or suggestions to make the combination as claimed by appellant and the reasonable expectation of success must be exclusively found in the prior art and not based on Applicant's disclosure.

All of these required examining elements are lacking in the position taken in the rejection of Appellant's appealed claims herein.

Appellant wishes to stress there is no suggestive teachings (except for appellant's own teachings) that would provide any direction or guidance to the ordinary artisan towards the knowledge or awareness of a highly unique claimed hooking component in the claimed tangential contacting, engaging and lifting cooperative relationship with a tennis ball or more remote an awareness of its unique use as claimed by the Appellant herein.

As pointed falsely out in MPEP 2143, under the basic requirements of patentability:

"the Examiner and the Board asserted that it would have been within the level of one of ordinary skill to substitute one type of detector for another in the system in the primary references. However, the court correctly found that there was no support or explanation for the conclusion and accordingly reversed the obviousness rejection."

The same Section 2143 factual patterns apply herein. Other than for Appellant's own teachings, there is nothing in the prior art to remotely teach or suggest what the Appellant has accomplished herein or even more remotely the unexpected results of Applicant's claimed invention. Similarly as In re Jones also referred to in MPEP 2143, the court found that there was no suggestion to

combine isolated teaching from the references to arrive at the claimed invention. Analogous to *In re Jones*, there is no suggestion whatsoever to combine the references and isolate certain discordant teachings from the references except solely on the basis of what the applicant has unexpectedly discovered and taught to the art. It is appellant's contribution alone which provides the sole suggestion for combining the cited references and applying those cited references to the 35 USC 103 rejection of record. It is applicant's invention which provides the motivation. It is applicant's inventions which provides the incentive against what was deemed impossible and the realization of what unexpected results which can be achieved herefor unbeknownst by following the very narrow, unique and unobvious embodiments of Appellant's claimed invention. These factors only known to the appellant, constitute an unobviousness invention clearly under these well established MPEP standards.

As further pointed out in the MPEP:

"the mere fact that the reference can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination."

Without the benefit of Appellant's own teachings and the need to rely upon Appellant's own teachings under the guise of an admission of equivalency (never made), the entire basis of the 35 USC 103 rejections rest. Again, the desirability of the claimed combination is totally lacking from the prior art knowledge. The prior art teaches precisely the opposite from the Appellant has done. The only logic for what has been discordantly gleaned from the combined patent teachings flows solely from Appellant's invention and Appellant's invention alone, which under the MPEP guidelines, clearly constitutes an unobvious and patentable invention under any of the standards of patentability. The 35 USC 103 rejection of record cannot be reconciled with the MPEP 2143.01 guideline that:

"although a prior art device may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so".

Again, this essential prerequisite for establishing a *prima facie* case of obviousness is lacking. The final rejection also resonates against the MPEP directive that:

"a statement of the modification of the prior art to meet the claimed inventions would have been well within of the ordinary skill of the art at the time the invention made because the references relied upon teach all aspects of the invention were individually known in the art is also notoriously recognized is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references".

The rejection presupposes that, just because all of elements were individually known, then the references may be combined notwithstanding the combined teachings as applied in the reference combination reaches a conclusion which is precisely contrary to what the references teach. There exist no basis whatsoever under the MPEP guidelines of patentability to deny the patentability of Appellant's claims. Again, as pointed out clearly in 2143.01 of the Manual of Patent Examining Procedure:

"if the proposed modification would render the prior invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification."

These guidelines have not been followed and have been flagrantly disregarded when the only enabling primary reference (i.e. Feldi) has been utilized in the forced combination of patents in the rejection of appellant's claims herein. Again, the Section 2143.01 basic requirements for properly combining patents in a 35 USC 103 rejection clearly states that "if the proposed modification" or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). The Board's attention is also directed to MPEP 2143.01 which noted the need to understand what a patent teaches by noting the "patentee taught the device required rigidity for operation whereas the claimed invention required resiliency". Recognizing the disparity between what the patent taught (rigidity) versus the applicant's claimed resiliency, the CCPA correctly held:

"the suggested combination of references would require substantial reconstruction and redesign of the elements shown in the primary reference as well as a change in the principle under which the primary reference construction was designed to operation."

Again, clear undeniable reliance herein upon the only primary teaching reference (i.e. Feldi et al) which when combined with the other references as applied in the rejection of record clearly changes the principle of operation of the references (use both hook and loop change tennis ball cover to loop or hook). References do not teach or suggest precisely the opposite from what they teach. References do not teach that their mode of operation can be altered so that they function in a completely different manner. Nonetheless, this is precisely the basis upon which Appellant's appealed claims stand rejected upon this appeal.

As also clearly elucidated in MPEP 2143.02,

"reasonable expectation of success is required and wherein the Evidence shows there was no reasonable exception of success these facts may support a conclusion of nonobviousness." In re Rinehart, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976).

Herein the prior art as applied by the Examiner in the 35 USC 103 rejections of appellant's claims clearly states that what applicant has accomplished cannot be accomplished.

An essential prerequisite of any determination of patentability under 35 USC 103, pursuant to MPEP 2143.03, commands that in order:

"to establish a prima facie obviousness of a claimed invention, all the claimed limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 508 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494,496 (CCPA 1970)."

If an independent claim is nonobvious under 35 USC 103, then any claim depending therefrom is nonobvious. There is no question that the very unique and narrowly defined limitations of Appellant's appealed claims herein have not been disclosed by the prior art. The Examiner has conveniently overlooked this glaring reversible error concluding that the prior art teaches equivalency and therefore, there is no need to supply prior art teachings relative to the narrowly defined limitations or the unique astounding findings as prescribed by Appellant's claims. The Examiner chooses to disregard the unbeknownst and unrefuted showing of Appellant's specific teachings which clearly shows that only one within a very narrowly defined material amongst a host of others heretofore and unknown to possess such an ability is capable of yielding the

unexpected results of the claimed invention. These teachings are solely based upon what the Appellant has taught to the prior art and knowledge only known to appellant. The final rejection concludes that all matters unknown to the art are known to the art. Thus, there exists no basis whatsoever to reject Appellant's claims because the examination has failed to meet all of appellant's claimed limitations. It is rather astounding that the undisclosed and claimed limitations which provide such unexpected results clearly remain untaught and unknown to the art should ipso facto be presumed to be obvious when in fact such a presumption is clearly contradictory to the guidelines and the commands of the Manual Patent Examining Procedure as prescribed by section 2143.03 in that all claimed limitations must be taught or suggested by the prior art and not by an applicant.

There exists on this appeal a false reliance upon an unsubstantiated and theoretical assumptions which has the Appellant challenged on numerous occasions for reasons there exists no scientific or factual basis supportive of those false assumptions upon which the Examiner appears to predicate the obviousness rejection herein. There exists no factual basis whatsoever, no scientific theory, no proof to allege that equivalency exists between garment fasteners which require (as taught by all of the references relied upon) a combination of mating hooked and looped materials and a unique hooked material which solely is uniquely capable of engaging and retaining a tennis ball so as to function as a totally unknown and unrecognized claimed component in the cooperative ball retrieving combination of appellant's claims. Nothing taught or known by the prior art was capable of doing what has been unexpectedly discovered by appellant. Nothing else in the prior art has remotely taught or suggested a result that could only be accomplished by Appellant's unique contribution as claimed.

The prior art as relied upon by the Examiner in the 35 USC 103 in the Answer teaches precisely the opposite from appellant's claims, and teaches that you cannot use a nylon hooked material to engage and retrieve a tennis ball and that you must go in a completely different direction because the tennis ball and the hook amongst those known hook and loop systems are incompatible and useless. Appellant discovered a very narrow and unique range of material

amongst many that is compatible with a tennis ball pile and provides the unexpected results as tabulated in appellant's specification example and verified by the appellant's Rule 132 affidavit of record. This represents an unobvious invention under any standard of patentability. As stated in MPEP 2144.03 and consistent with Ex Parte Nouel 158 USPO 237, if an applicant traverses an unsupported assertions or assumptions made by the Examiner, then the Examiner must cite either a supportive reference or provide an Examiner's affidavit to support any such alleged assertion or assumption or withdraw the unsupported assertions. This has not been done. The erroneous and false presumption that garment fasteners and hook and loop systems (whether invention is trademark or not) extend to hooks alone must be withdrawn because it lacks evidentiary support. It has been assumed that in the absence of any factual background that the conclusion of obviousness is supported simply on the presumption that paired hook and loop garment fasteners establish equivalency for any and all hooked materials for all materials notwithstanding prior art teachings and those factual showings of record which clearly refute any such unsubstantiated and unwarranted presumptions. Assertions of technical facts in areas of esoteric technology must always be supported by citation of some reference work and allegations concerning specific knowledge of the prior art which might be peculiar to the particular art should also be submitted in evidentiary support involving any 35 USC 103 rejection. Herein, the Examiner has been repeatedly challenged for the lack of evidentiary support of the obviousness rejection and has been challenged about an alleged equivalency which is not an equivalent in fact or law. Notwithstanding, the grounds for the rejection have been merely repeated without giving any factual background as required under the MPEP to support such a mere allegation.

As explicitly stated in to the provisions of MPEP 2144.06, these standards of patentability have not been followed in the examination and rejection of appellant's claims herein;

"In order to rely on equivalency as a rational supporting an obviousness rejection, the equivalency must be recognized in the prior art, and cannot be based upon the disclosure or the mere fact that the components at issue are functional or mechanical equivalents." In re Ruff, 256 F.2d 590, 118 USPQ 340 (CCPA 1958).

The mere fact that components are claimed as members of a group cannot be relied upon as basis for establishing known equivalency when in fact the members are not equivalent as clearly shown by the facts of record. As clearly stated in In re Ruff, a markush grouping cannot be relied upon to establish equivalency simply because what is known only to appellant is not part of the prior art. Again, Appellant has repeatedly pointed out and consistently argued that there is no equivalency, that the claimed components of invention are unique, distinct, and completely different from anything else known by the Appellant and by the prior art. "Components which are functionally or mechanically equivalent are not necessarily obvious in view of one another, and in this case the use of a light wood or hardened foam resin core does not fairly suggest the use of a paper core."

As also stated in MPEP 2144.08 to establish a prima facie case of obviousness in a genus-species chemical composition situation (nylon hook and loops are chemical components, the character of which will be altered by their manufacture) as in any other 35 USC 103 case, it is essential that the office personnel find motivation or suggestion to make the claimed invention in light of the prior art. You cannot assume that a claimed component (which is undisclosed and unsupported by the prior art) is known and can be ipso facto applied and then rely solely upon Appellant's own disclosure to form the entire basis 35 USC rejection as has been done in the rejections involved in this appeal. Where evidence of secondary considerations such as in the unexpected results is initially before the Office such as an example of appellant's specifications, that evidence should be duly considered and weighed in deciding whether there exists sufficient evidence to support a prima facie case of obviousness. Whether or not a prima facie case of obviousness exists should be made on the full record before the Patent Office at the time. In making the obvious determination, the Office personnel should consider the number of variables which must be selected or modified and the nature of the significance of the differences between the prior art and the claimed invention. Again, this has not been applied in the rejection of appellant's claims under 35 USC 103. Again, referring to the Manual Patent Examining Procedure and particular the provision of 2145, it should be noted that:

**"However the claimed combination cannot change the principle of operation of the primary reference or render the reference inoperable for its intended purpose."**

Again, this is precisely what has happened in the examination and rejection of the appealed claims herein. Section 2145 clearly states that only substantiated knowledge which is within the level of ordinary skill in the art of the time the claimed invention was made applies to the 35 USC 103 rejection and does not include knowledge gleaned only from an Applicant's disclosure. Such reconstruction of the prior art is clearly improper for 35 USC 103 purposes. Where the prior art gives no indication of which parameters were critical or no direction as to which of many possible choices is likely to be successful, it should then be clear that the claimed invention is accordingly unobvious. Again these examining principals as commanded by the MPEP apply to appellant's rejected claims. Also stated therein, in addition to the material below, see MPEP §2141.02, the prior art must be considered in its entirety, including those prior art disclosures that teach away from the claims and the MPEP §2143.01 provisions *that the proposed modification cannot render the prior art unsatisfactory for its intended purpose or change the principle of operation of a reference*. Again, one cannot rely upon the cited references in the discordant manner in which they have applied in the appealed 35 USC 103 rejections of appellant's claims without violating this explicit command of the Manual Patent Examining Procedure. Moreover, those prior art references which teach away from the claimed invention are necessarily a significant factor in determining obviousness. Teachings by the cited references that applicant's invention cannot be accomplished and teach away from applicant's invention have not been given any due consideration as required under the MPEP herein. It is improper to combine references where those very references relied upon teach away from their combination (e.g. see *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed Cir 1983). Also, as stated 2145, the totality of the prior art must be considered, and proceeding contrary to accepted wisdom in the art is evidence of nonobviousness. *In re Hedges*, 783 F.2d 1038, 228 USPQ 385 (Fed. Cir. 1986) held that the claimed invention was unobvious because it was contrary to accepted wisdom because the prior art as a whole suggested using lower temperatures for optimum results as evidenced by charring,

etc. Again, the prior art of record as a whole, clearly teaches precisely the opposite from what appellant has accomplished. Appellant's unexpected results are clearly indicative of the patentability attributes of the invention as a whole and as claimed by appellant herein.

Bearing in mind the aforementioned guidelines, the thrust of the Examiner's rejections (as stated in the Answer) rests upon the basic premise that "Feldi is only lacking because it is silent with respect to the dimensions of the fastener material." This clearly constitutes a clear violation of the MPEP patentability requirements and reversible error in that:

- a) The referenced teachings as a whole, including disclosures that teach away from the claims, must be taken in account.
- b) The claimed combination cannot change the principle of operation of the primary reference or render the reference inoperable for its intended purposes. (MPEP 2143.01).
- c) references cannot be combined where references teach away from their combination (MPEP 2143.01)
- d) proceeding contrary to accepted wisdom is evidence of nonobviousness. (MPEP 2143.01).

Contrary to the position taken in the Examiner's answer, the Feldi teachings clearly require a ball cover to be changed to either a hook or loop material (clearly not a tennis ball by definition) and the opposite hook or loop of the mating hook and loop combination to be used as the retriever component upon the tennis racquet. The appellant has made of record that a tennis ball by standard of definition requires a wool pile cover. The Examiner's argument that appellant does not claim a ball is without substance and not germane to the 35 USC 103 issue herein.

Appellant's method claims are in fact limited to a method requiring a tennis ball (not any ball) and the cooperative components of the claimed combination in cooperative association with a tennis ball. The Examiner's argument is irrelevant under 35 USC 103 that "there is no teaching or motivation that the hooked component may be used separately apart from the mating loop component" cannot be reconciled with what Feldi teaches. The Examiner has been challenged to

show by probative evidence that a ball covered with either a tempered thermoplastic hook or loop material in any form or manner meets the standard tennis ball wool pile requirements. The Examiner chooses to duck this examining requirement by improperly construing appellant's claimed requirement of "comprising" a tennis ball as not being "broad enough to encompass changing the tennis ball pile" and as not being limited to a tennis ball. If the MPEP guidelines may be selectively gleaned and disregarded as may any of the references in a reference combination under 35 USC 103, then what purpose is served by the MPEP guidelines or the statutory and judicial commands upon which these 2100 patentability guidelines are based. Does patent law allow facts to be arbitrarily determined (contrary to the patent teachings) and applied in an administration decision which contravenes the controlling the law? Does the MPEP condone the reading of claims out of the context in which they are found? Does the MPEP permit material claimed limitations to be regarded as immaterial? How strained can the interpretation of the patent claims and the prior art be before it falls within the ambit of protection afforded by the MPEP?

In the paragraph bridging page 5 and 6, the Examiner presumes inherency upon the basis of what appellant has taught. Inherency can never be presumed and must be supported by art. What is inherent may not be known. While disregarding the essential hook and loop combination teachings of Feldi, the Examiner's 35 USC 103 rejection compounds the reversible errors by conveniently overlooking the fact Melbye pertains to unclaimed subject which does not work and that the Velcro<sup>TM</sup> and Scotchmate<sup>TM</sup> teachings pertain strictly to the paired hook and loop combinations (referenced as "garment fasteners" which work as a paired hook and loop combination per the Melbye teachings). The non-sequitur "garment fastener" teachings are erroneously extrapolated to an unfounded and erroneous art recognized equivalency that all hooked materials are equivalent to one another when in fact no such equivalency is taught by the art nor has such an equivalency been admitted by appellant. The rationale of the 35 USC 103 rejections in meaningless and contradictory to the cited art references relied upon to reject appellant's claims and only becomes meaningful when viewed in light of those matters only

known to the appellant and still remain completely unknown to the art. How under any 35 USC 103 standards of patentability can it be concluded or permitted in combining references to do something completely contrary to the Feldi patent teachings (paired hook and loop essential) as well as Melbye (paired combination) so as to alter the essence of the combined teachings and to render both Feldi and Melbye inoperative for their intended purpose and function, absent any supportive reason or fact other than the unknown solely known and taught by appellant? An undisclosed and untaught claimed limitation of the appealed claims involves the tangential contact and lifting of a tennis ball with a novel tennis racquet equipped with the untaught and unsuggested nylon monofilament hooked material of an unknown, unique, and unexpected cooperative hooking and lifting between the tennis ball and the unique and unknown tennis racquet, all of which are presumed to be known for no other reason than appellant's own teachings teach what is relevant and irrelevant. Inherency cannot be presumed as falsely stated in the Examiners' answer but must be proven.

The Examiners comments in the paragraph bridging page 5 and 6 defies the MPEP patentability standards by concluding that the inseparable teachings of the mating hook and loop Feldi teaching (essential, essence an inoperable without) are irrelevant. How can what a patent teaches (both Feldi and Melbye) as being a most relevant be deemed to be arbitrarily irrelevant simply because there exists no other factual or legal basis for the 35 USC 103 rejections?

The Examiner's comments regarding the Musslin patent pertains to what the Musslin patent does not teach and not what Musslin actually teaches to the ordinary artisan and reaches the non-sequester conclusion that since Musslin does not teach such matters it must be concluded that Musslin contemplates that claimed embodiments of appellant's invention. Musslin teaches everything from naturals to metals, to synthetics to whatever, but does not in fact teach anything of substance. Musslin is too broad and indefinite as well as nonenabling in adding to the working knowledge of any ordinary artisan. How in any form or manner can the paucity of Musslin patent teachings be deemed to teach undisclosed and untaught elements. The Examiner's apparently acquiesces to the fact that Musslin is completely non-enabling in its teachings, teaches nothing of

substance and certainly not the undisclosed and untaught embodiments of appellant's claimed invention and is totally discredited by the latter and more complete teachings of the prior art as taught by Feldi all of record. Thus Musslin provides nothing of substance to buttress the 35 USC 103 rejection of record.

On page 8, the Examiner's ceases upon notion that just because Feldi teaches it is difficult, then "Difficulty should not be confused with impossibility". Feldi found it so difficult that it became necessary to completely change a tennis ball cover to the hook or loop so that the hook and loop combination (not one alone) would permit the two elements (as do garment fasteners) to engage, hook and lift a ball which no longer meets the standard of identity for a tennis ball. So difficult, so unfeasible that Feldi abandons the hook concept by itself. This is hardly the motivation as required under the MPEP and patents laws.

The rules of combining references require at a minimum a reasonable expectation of success. When the crucial patent upon which the 35 USC 103 rejections rests (Feldi) concludes that it doesn't work, tells the prior art to go to the extreme of changing the ball cover to a hook or loop so as to provide the mating hook and loop combination in order to work, acknowledges what the Examiner concludes hasn't heretofore and won't work and teaches precisely the opposite from appellant's claimed invention, how can these exist motivation and a reasonable expectation from the essence of the prior art (i.e. Feldi primary reference) of a reasonable success of appellant's invention much less the appellant's unexpected results? The Office Action answer by concluding it is not impossible must under any fair and impartial interpretation of the prior art at least admit it is most improbable which under any legal standard does not meet the requirement of reasonable expectation of both success and result. Based upon the state of the art, as exemplified by Feldi, there exists no expectation whatsoever that Appellant's unexpected results could be achieved. How such results may be achieved and what astounding results may be achieved cannot be held to be a reasonable expectation based upon the prior art teachings as a whole. The prior art teaches one cannot expect the result and therefore there is no reasonable expectation of success as commanded by the MPEP and the controlling case law.

The Examiner's position regarding Melbye misses the controlling case law regarding ~~reading references for what they actually teach as a whole and what is legally required to establish~~ a prima facie case of equivalency under the MPEP guidelines and the well established case law. Neither the mushroom type hook strip nor the garment fasteners of Melbye are the functional equivalent to the hooked materials as so precisely claimed by the appellant herein. Functional equivalents at a minimum requires that they perform in substantially the same manner to produced substantially the same result. A hooked material is not in any form or matter the equivalent to a combination of a hook material and a looped material specifically processed, chemically altered, and specifically structured to cooperatively engage together as a fastener combination such as the paired garment fastener taught by Melbye. Beyond its "garment teachings", the Melbye fastener is specific in its cooperative interrelation between mating mushroom fasteners which do not work as clearly attested to by appellant. Contrary to assertions, the patent teachings relied upon (e.g. see Feldi and Melbye) in the rejection of appellant's claims do not teach that all hooked materials or even that Velcro and Scotchmate are equivalents, but rather when these mating materials are used in combination they then serve as fasteners and may as such then be used to retrieve a ball modified to the fastener system by relying upon both the hook and loop fasteners. A hooked material is not a fastener and it was never intended by any of the references to be a "garment fastener" by itself. The combination of both the paired and mating hook and loop of each mating fastening system constitutes the garment fastener of Melbye and no more. The mating hook and loop requirements of Feldi is not the equivalent to the hook material and foreign (non-loop) material. Simple logic dictates no other conclusion.

The comments of the Examiner's answer on page 8 are most frustrating to appellant. If the proof already made of record is regarded as being legally insufficient to support a finding of unexpected results, then there exists no possible manner for any applicant to ever show unexpected results. The stated position that the appellant "has shown neither unexpected or astounding results" and "[M]ere arguments or conclusions cannot take the place of evidence" is unfair, wrong, and unjust to the appellant. The patent application as filed and the invention as

claimed distinguishes and reeks with such astounding and unexpected results. The Board of Appeals attention is courteously directed to appellant's example of pages 10-16 and particularly the comparative testing between monofilament hooked materials outside the scope of the claims compared to the only hooked material (e.g. see data table 3, page 5 lines 12-24 and page 16, lines 1-6) of a host of others which meets the claimed requirements and the unexpected results (as tabulated in Table 1 of page 13) of the claimed invention comparative to those of other materials which are outside the scope of the claimed subject matter. As stated on Page 10 of appellant's specifications "a comprehensive study was undertaken. A host of different types of hooked materials were tested and all other hooked materials failed to exhibit any efficiency in lifting a tennis ball after tangential contact of the material with the tennis ball. These findings are consistent with what the cited art of record also teaches. To discover a material which produces unexpected results as reported in appellant's example is unexpected.

There exists a vast difference between the host of hooked materials for use with mating loop materials as manufactured and distributed throughout the trade. Although, these hook materials will serve as garment fasteners when used as their intended paired fasteners, there exists no satisfactory showing of record that they may be used with other materials, much less a tennis ball (actual art teaches they cannot). Simply on a functional basis as clearly shown by appellant's affidavit and comparative data, no obvious or actual equivalence exists between the host of available garment fastener materials which is consistent with the prior art teachings.

The same error of convenient selectivity of which facts are to be considered and which are to be dismissed or "shoved under the rug" arises when considering an evaluation of appellant's claimed invention "as a whole". Claimed limitations which clearly distinguish appellant's claimed invention as a whole are completely disregarded as being immaterial for reasons unsubstantiated in law or fact. For example, the Examiner has chosen to dismiss appellant's original specification and comparative example results as merely being argumentative, conclusionary and not evidentiary. The entire thrust and teachings of appellant's specifications evolves around the uniqueness and specificity of the engagement and the hooking of "a tennis ball nap of the

grounded tennis ball" with a hooked material defined as having an "average monofilament diameter of at least 8.0 mil, an average hook height of at least 1.85 mm and an average depth of at least 0.6 mm" and at least 250 hooks per surface inch or required by claim 10 (also see narrowly defined and tight tolerances of appellant's claims 4-10 and 12-15). Appellant's table 3 verifies that the claimed nylon monofilament hooked material of at least an average height (e.g. 1.91 mm), average width (e.g. 1.13) and average depth (e.g. 0.71) as opposed to those outside the scope of appellant's claimed average height (shown 1.91 of at least 1.70 mm, 1.85 mm of claims 4-8 and 10-11, 1.90 mm of claims 9 and 12-13 versus 1.67 mm and 1.37 mm of representation of the prior art) an average width of at least 1.0 mm (claims 2-3, 4-8, 10-12 etc.) yields comparative data which supports the unexpectedness of appellant's claimed invention as a whole.

The failure to consider all the claimed limitations, the invention as a whole, including the unexpected results, the failure to consider the art in its totality and the overall paucity of factual inquiry is exemplified by the cursory treatment of appellant's claims 9 and 12. Claims 9 & 12 define the nylon monofilament hooks and "having" an average monofilament diameter" of "at least 8.25 mil, average height of at least 1.90, average hook width of least 1.05 or ranges from about 1.1 mm to about 1.3 and average hook depth of about .065 to about .75 mm or at least .065, all of which limitation are found and supported in appellant's specification comparative data (see table 3, pages 15-16 test comparison) and shown to yield unexpected results over the closest failing rival as shown in the Table 1 of page 13 specification reported results bridging pages 14 and 15.

The results reported on page 14-16 showing that the unique and unexpected results, (e.g. ball engaging and lifting capacity and the sole and only unique capability of all three major tennis ball brands) is clearly evidence of unexpected results. There exists no basis to conclude that in a scientific and verifiable experiment, as reported in appellant's example, clearly demonstrates what happens when one is within the scope of the claims and what happens when one is outside of the scope of the claims is not evidence. This evidence is not a mere argument or conclusion but rather clear and convincing evidence as disclosed clearly in appellant's specifications and further

supported by her Rule 132 affidavit. Again the Examiner is picking and choosing what evidence he deems necessary to sustain the 35 USC 103 at the exclusion of the relevant facts of record.

Another manifestation of the failure to consider the claimed invention as a whole and the prior art as a whole before reaching any decision as to the prima facie case of obviousness issues arises by the treatment of prior art evidence submitted by appellant regarding the claimed "tennis ball" requirement. The Examiner notwithstanding previous challenges and clear prior art teachings concluding otherwise, boldly states "any ball used in tennis, can be properly a tennis ball". Appellant's Exhibit E, pages E-1 - E-17 is a printed publication by Wilson Sports which clearly refutes the Examiner's unsupported and false allegations that any ball may be perfunctorily regarded to be a tennis ball. According to the Wilson evidence of record in order to meet the standard definition of a "tennis ball", the ball besides other tightly controlled tolerances in structure, composition and other physical properties, all of which determine whether or not a ball is a "tennis ball." A clear requirement amongst many others is that the ball must have a felt cover (a wool nap) not a nylon monofilament hook or loop cover as purposed by Feldi and alluded to in the Examiner's answer. Even if the Board of Appeals fails to consider the Exhibit E, the Examiner's position that any ball is a tennis ball must fail because the Examiner has been challenged to prove an unscientific allegation and has failed to provide the required evidentiary support (e.g. see Ex Parte Nouel).

The problem herein is the same as poised by the Deere requirements of resolution of the prior art as a whole and the invention as a whole in that the Examiner chooses notwithstanding clear prior art teachings to the contrary to conclude "any ball" is a tennis ball. This is absurd and grossly unfair to the appellant and undermines her regulatory and statutory rights under the patent laws.

The Examiner is charged to take into account and weigh all of the facts of record. If the Examiner makes an unscientific or wrongful conclusion of "fact", the appellant is entitled to challenge the Examiner for proof and to present evidence in direct refutation of an alleged fact.

Exhibit E is published (available to anyone) and clearly shows the Examiners is wrong in concluding "any ball" is a tennis ball.

The Examiner's position in the paragraph bridging pages 8 and 9 regarding equivalency rests upon disjointed selectivity of alleged isolated facts taken out of the context in which they are found. The mere fact that something may be known to be a component of a mating combination does not mean that the unmated component for a completely different purpose is known. Within the context of the patent laws almost all components are known but that does not mean that an invention can never arise through the use of a known component for a use which is unknown. If this were true, then there would exist little need for the patent system since most inventions rely in some form or matter known materials.

The Examiner fails to realize that references and the prior art as a whole must be weighed for what they fairly teach and suggest to the ordinary artisan. Appellant's specification page 1-4 summarized what the only two enabling teachings (i.e. Feldi and Urwin) of the 35 USC 103 rejections have concluded, that contacting, engaging and lifting of a tennis ball with hooked materials is not feasible. The art, as a whole, tried and failed and therefore suggested changing the tennis ball cover (e.g. Feldi) or cupping the ball with a cupping device as suggested by Urwin. These prior art teachings clearly lead the art away from appellant's invention and clearly teach the unfeasibility of appellant's claimed invention.

On page 9, the Examiner's Answer concludes that "the law does not require that the references be combined for the reason contemplated by the inventor". By the same token, the law does not permit references to be combined in a manner totally un contemplated by the art as well as, contradicting the MPEP rules and guidelines for property combining references. Appellant agrees that the question of obviousness should be answered by looking at the references for what they fairly suggest but not upon the basis of what the appellant has done or what the references would teach if their respective teachings were construed to completely contradict what is taught or rendered inoperable by the essence of the patent teachings. The Examiner should be required

to follow the MPEP guidelines in the examination of Appellant's claimed invention. There exists no need for the Section 2100 patentability guidelines, if there are not to be followed.

It is not understood what relevancy 37 C.F.R. 1.97 and 1.98, and 37 C.F.R. 1.56 bear upon Exhibits of prior art filed upon appeal. The burden rests upon the Examiner with or without contrary proof to factually support his own allegations. The evidence clearly establishes there are a host of processes for producing a host of different (chemically and physically) hook and loop combinations. The evidence clearly establishes a host of products that are provided by a host of manufacturers and distributors. What relevancy does the disclosure statement requirements bear to these facts?

The Examiner's position in paragraph 1 of page 10 is clearly in discord of the MPEP guidelines stated above. Neither the facts of record nor the controlling guidelines governing a prima facie case of obviousness have been established. The 35 USC 103 rejections of claims 1-15 should accordingly be reversed.

Dated this 23rd day of April, 2003.

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